

18.15 **Development of an oil shale-fired circulating fluidized bed boiler for electricity generation**

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Oil shale is an important energy resource in China. Circulating fluidized bed combustion technology is perhaps the most appropriate way to burn oil shale to generate electricity and heat. In 1996, a 65 t/h oil shale-fired circulating fluidized bed boiler (CFBB) was put into operation in Huadian city, China. It was the largest boiler of its kind at the time and has been in continuous and stable operation for 13 years. In 2006, a 75 t/h pulverized coal boiler was refitted to operate as a 65 t/h oil shale-fired CFBB and went into operation in Guangdong in early 2007. Another oil shale-fired CFBB was developed based on the characteristics of Wangqing oil shale to operate at a rate of 35 t/h and went into operation in Jilin Province in 2008. This paper describes the design features and operating results for these three boiler systems.